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TITLE

FOREST INSECT CONDITIONS ON THE
CLEARWATER NATIONAL FOREST AND ON LANDS
ADMINISTERED BY THE CLEARWATER TIMBER PROTECTIVE ASSOCIATION
1945

by
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Coeur d'Alene, Idaho
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The major object of the examinations reported upon in the succeeding pages was to depict past and present losses due to the mountain pine beetle in western white pine. Damage due to other insects is also reported.

In obtaining the preceding information a limited amount of strip was run in the stand, during which counts of green trees, trees infested with the mountain pine beetle, and standing trees killed by the same insect were recorded. Inspection of larger areas from vantage points was supplemented by strip data. Wherever the status of an infestation seemed to make it advisable, and time permitted, more strip was run in stands containing western white pine in order to obtain a more accurate estimate of the infestation present. By comparing the number of green western white pine, 8 inches and larger in diameter breast high, with infested and dead trees killed, an estimate of the stand losses at different times, is made possible.

Strip data included counts of green western white pine, standing trees killed by the mountain pine beetle in the last 15 to 25 years, and trees killed by the same agency in 1944 and 1945.

Skull Creek

An examination of a small part of Collins Creek on this large drainage revealed no attacked trees but a "lockase" showed 7 red-tops on about 2,000 timbered acres. Most of the western white pine viewed seems immature and to be making excellent growth. Only along creek beds and for about 5 chains up the mountain sides, were veterans and overmature trees observed. Snags amounted to only 2.5 percent of the green stand.

From the mouth of Skull Creek to Collins Creek Cabin the losses in western white pine have been quite light. No present infestation was noted.

From the Collins Creek Cabin up Skull Creek for a short distance and then southeast up the mountain to Wallow Mountain Lookout, only an endemic infestation exists on that general area. Past losses have also been light. In Section 35 Township 40 North, Range 8 East, an unusually dense stand of western white pine was observed. About 90 percent of the composition was western white pine averaging about 13 inches in diameter for trees 8 inches D.B.H. and larger.

No appreciable percentage of overmature trees were noticed on any part of this area. Mature timber comprised 50 percent of the stand and the other half was immature.

From the Wallow Mt. Lookout many square miles of timbered country were visible, none of which showed other than widely scattered red-topped western white pine.

General conclusions are that mountain pine beetle infestation in the Skull Creek drainage is endemic in the areas examined.

The Douglas fir beetle is causing losses over all areas observed on the Skull Creek drainage. Near the mouth of Skull Creek about 25 infested Douglas fir were noted as well as considerable old loss from there to Hub Creek on the north side of Skull Creek.

Clearwater River from Canyon R. S. to Skull Creek

Much of the north side of the Clearwater River from the Canyon R. S. to a short distance above the east branch of Twin Creeks, has been burned over. The rest of the distance to Skull Creek supports a mixed stand of which the western white pine averages about equally mature and immature. Past losses due to the mountain pine beetle, as shown by snags, have been quite light in western white pine. Observations of the stands on the south side of the river revealed only scattered red-top western white pine.

The Douglas fir beetle is causing increasing losses on the south side of the river, with group killing up to 15 trees observed.

Quartz Creek

The slope from Wallow Mountain to Quartz Creek supports a somewhat more mature stand of western white pine than was noted on Skull Creek. In spite of that, no significant difference in the amount of the present infestation was noticeable and past losses, as indicated by snags, were only slightly higher.

West along Quartz Creek and then up the slope to Moscow Bar Lookout,

the timber is more mature than on the north slope. Past losses, judged by the many snags and some group killings, have been heavy, but there is practically no present infestation. Heaviest losses have, in general, been on the more exposed ridge sites.

The timber stand on the south side of the Quartz Creek Drainage between the Creek and Moscow Bar Ridge and from Grizzly Creek to the river runs 75 percent or more to western white pine. The timber is of good quality and the areas range from about 50 acres to as much as a section in extent.

On Moscow Bar Ridge ~~there~~ a great deal of white pine, defective at the base, was found. Apparently a light ground fire on a steep slope generated just enough heat, in the accumulation of inflammable material on the upper side of the trees, to kill that part of the base.

Losses due to the Douglas fir beetle are increasing on this drainage, especially along the Quartz Creek - Clearwater River divide. Heavy defoliation of some larch by the larch saw fly during the current season, and many dead larch, were noted on part of the drainage.

Oster-Decention Creek

Examinations made on this general area reveal overmature and veteran white pine comprise approximately 2/3 of that timber species and immature trees about 1/3. Losses in the past, due to the mountain pine beetle, have been much heavier than the data indicate due to the fact that much of the kill has been windthrown and was not considered in the snag count. The data collected is as follows:

Data Concerning the Mountain Pine Beetle in Western White Pine

	Green Trees	1945	<u>Losses</u> 1944	Snags
Number	3273	17	32	527
Percent	--	.5	1.0	16.1

From the preceding data it is seen that infestation in 1945 is light and considerably reduced from the amount present in 1944. Past loss as indicated by snags has been high and reflects the susceptibility of so much overmature timber to insect attack.

There were a number of small areas on which the larch saw-fly had caused heavy defoliation of that timber species during 1945.

Orogrande Creek

Infestation of the mountain pine beetle in western white pine seems to have increased slightly in 1945 over 1944. Scattered single trees are general throughout the area and a few pairs of infested trees were noted. The percent of infested trees decreased as the upper part of the Orogrande Drainage was approached. The present status of the mountain pine beetle on this drainage indicates no serious threat to the western white pine in spite of the increase noted.

From about 4 miles southwest of Bungalow Ranger Station, for another 6 miles up Orogrande Creek, losses in Douglas fir seem to have increased over last years infestation. As many as 15 trees were noted in a group and 3 to 7 fading trees per group were of common occurrence.

Over the same area larch has been more or less defoliated. The larch saw-fly is the probable responsible agency.

Mud Creek Lookout Vicinity

Only scattered mountain pine beetle infested western white pine are to be found on the above area, indicating an endemic condition.

A heavy infestation of the Douglas fir beetle in Douglas fir is developing in Yakus, Mud and Eldorado Creek drainages. Already groups of as high as 50 trees are to be found as well as numerous smaller concentrations and a general distribution of single trees.

In addition to the Douglas fir beetle, a defoliator is causing light damage to Douglas fir, white fir, and Engelmann spruce. The agency responsible was not apparent. Cedar is showing considerable flagging on some trees but there was no indication of the cause, as no feeding on foliage or stems was noted.

Sections 13, 14, and 15 - T. 36N., R. 2E.

This area is under the Clearwater Timber Protective Association jurisdiction and was examined on request of that organization. The writer failed to note any serious infestation of the mountain pine beetle in western white pine, only occasional red-top trees being observed and no trees attacked during the current season. Past losses in white pine have also been light; slightly less than 5 percent of the green trees in the area sampled. Most of the trees killed were small and had been suppressed. In the portions of each section examined, western white pine was found to occur chiefly in pockets on north-facing slopes, elsewhere as scattered trees in a mixed stand. Western white pine in the area averaged about 60 percent immature and 40 percent mature.

Douglas fir, in this mixed stand on the area has, and is continuing to show heavy losses from the Douglas fir beetle. To date from 15 to 25 percent of that tree species has been killed. This infestation is believed to have been observed and mistaken for western white pine, an error that can easily be made unless observations are made from a short distance away.

Larch has also suffered heavy losses on the area but not to as great an extent as the Douglas fir.

DISCUSSION

On the areas visited on the Clearwater National Forest and on the Clearwater Timber Protective Association, infestation of the mountain pine beetle in western white pine was found, in general, to be either decreasing or in an endemic status. The one exception was on Crogrande Creek where a light infestation has shown a slight increase.

The infestation of the Douglas fir beetle in Douglas fir is taking a heavy and an increasing toll of the stands of that species. Already serious losses have occurred in many areas and there is no present indication that similar losses will not continue and the infestation spread to other areas.

The larch saw-fly was found over much of the area examined, in varying degree of intensity.

Other defoliators have caused more or less loss of foliage over considerable areas. As some of these infestations are in their initial stages, heavier losses may be expected in the next year or two.